

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An exhaust gas treating apparatus comprising:

a case body functioning as a passage of exhaust gas containing substances to be treated, and

a plasma producing means capable of producing plasma inside the case body;
~~and body for treating the substances to be treated contained in the exhaust gas by the plasma produced by the plasma producing means; gas;~~

wherein the plasma producing means has one or more each of a pulse electrode and a ground electrode that are oppositely disposed in the case body and has a pulse power source capable of feeding a pulse current to the pulse electrode, and ~~by the pulse power source is capable of automatically switching frequency and/or voltage value for different values at predetermined time intervals so that plasma of a kind adequate for the substances to be treated contained in an exhaust gas is produced between the pulse electrode and the ground electrode, the electrode to selectively treat the substances to be treated in the exhaust gas can selectively be treated. gas.~~

2. (Original) An exhaust gas treating apparatus according to Claim 1, wherein the predetermined time intervals are 0.01 to 500 seconds.

3. (Previously Presented) An exhaust gas treating apparatus according to Claim 1, wherein the pulse power source is capable of feeding a pulse current by switching from a first pulse current having a frequency of 100 to 1000 Hz to a second pulse current having a frequency of 500 to 2500 Hz, and vice versa.

4. (Previously Presented) An exhaust gas treating apparatus according to Claim 1, wherein the pulse power source is capable of feeding a pulse current by switching

from a third pulse current having a voltage value of 2 to 5 kV to a fourth pulse current having a voltage value of 3 to 20 kV, and vice versa.

5. (Previously Presented) An exhaust gas treating apparatus according to Claim 1, wherein the pulse electrode and/or the ground electrode comprise(s) a ceramic body functioning as a dielectric body and a conductive film disposed in the ceramic body.

6. (Previously Presented) An exhaust gas treating apparatus according to Claim 1, which further comprises a catalyst on a downstream side of the plasma producing means in the passage of exhaust gas.

7. (Currently Amended) An exhaust gas treating ~~method~~ method for treating substances to be treated contained in an exhaust gas by plasma produced in a passage of the exhaust gas containing the substances to be treated, the passage having

~~wherein~~ one or more each of a pulse electrode and a ground electrode that are oppositely disposed, the method comprising:

~~_____ and a pulse current is fed by switching frequency and/or voltage for different values at predetermined time intervals so that plasma of a kind adequate for the substances to be treated contained in an exhaust gas is produced to feed a pulse current that produces plasma between the pulse electrode and the ground electrode-electrode, the plasma being of a kind adequate for the substances to be treated contained in an exhaust gas; and~~

~~_____ to selectively treat~~ selectively treating the substances to be treated in the exhaust gas ~~gas with the plasma.~~

8. (Original) An exhaust gas treating method according to Claim 7, wherein the predetermined time intervals are 0.01 to 500 seconds.

9. (Previously Presented) An exhaust gas treating method according to Claim 7, wherein the pulse power source is capable of feeding a pulse current by switching from a first

pulse current having a frequency of 100 to 1000 Hz to a second pulse current having a frequency of 500 to 2500 Hz, and vice versa.

10. (Previously Presented) An exhaust gas treating method according to Claim 7, wherein the pulse power source is capable of feeding a pulse current by switching from a third pulse current having a voltage value of 2 to 5 kV to a fourth pulse current having a voltage value of 3 to 20 kV, and vice versa.

11. (Previously Presented) An exhaust gas treating method according to Claim 7, wherein the exhaust gas is exhausted from an automobile engine, and the pulse current is fed by switching, step-by-step, frequency and/or voltage for different values at predetermined time intervals in correspondence with change in revolution and/or load of the engine.

12. (Previously Presented) An exhaust gas treating method according to Claim 7, wherein the exhaust gas is exhausted from an automobile engine, and the predetermined time intervals for switching frequency and/or voltage value for different values is changed step-by-step in correspondence with change in revolution and/or load of the engine.

13. (Previously Presented) An exhaust gas treating method according to Claim 7, wherein a catalyst is further disposed on a downstream side of the portion where the plasma is produced in the passage of exhaust gas to further treat exhaust gas passed through the plasma by the catalyst.

14. (New) An exhaust gas treating apparatus, comprising:
a case body functioning as a passage of exhaust gas containing substances to be treated, and
a plasma producer configured to produce plasma inside the case body,
wherein the plasma producer has one or more pulse electrode and one or more ground electrode that are oppositely disposed in the case body and has a pulse power source capable of feeding a pulse current to the one or more pulse electrode, and

wherein the pulse power source is configured to automatically switch frequency and/or voltage values at predetermined time intervals to produce plasma of a kind adequate to selectively treat the substances between the one or more pulse electrode and the one or more ground electrode.

15. (New) The exhaust gas treating apparatus according to Claim 1, wherein the pulse power source is configured to switch the pulse current between a low-voltage pulse current and a high-voltage pulse current, the low-voltage pulse current and high-voltage pulse currents having non-zero voltages.

16. (New) The exhaust gas treating method according to Claim 7, wherein the switching step comprises switching the pulse current between a low-voltage pulse current and a high-voltage pulse current, the low-voltage pulse current and high-voltage pulse currents having non-zero voltages.

17. (New) The exhaust gas treating apparatus according to Claim 14, wherein the pulse power source is configured to switch the pulse current between a low-voltage pulse current and a high-voltage pulse current, the low-voltage pulse current and high-voltage pulse currents having non-zero voltages.